

DEVICE SYSTEM FOR MULTIPLE MOTORS

ABSTRACT OF THE DISCLOSURE

A device for supplying energy by means of a first DC voltage source e.g. in the form of a DC voltage bus, a drive system comprising several electric motors is connected to said DC voltage bus. The electric motors are comprised e.g. in a number of yarn feeding devices co-acting with a weft insertion system in a shuttleless weaving machine for producing a woven fabric having a multi-colour pattern. The electric motors operate with energy consumption function phases (start and acceleration) and with energy generating function phases (deceleration or braking). The first DC voltage source is associated with at least one second DC voltage source via a variable voltage converter. During operation of the electric motors DC voltage and/or current parameters are detected and used to control the voltage converter to produce an energy flow from the first to the second DC voltage sources during an energy generation function phase, or from the second to the first DC voltages sources during an energy consumption function phase. By said energy flows an evening-out of the voltage variations at the first DC voltage source is achieved. The second DC voltage source comprises capacitors defining an active energy buffer.